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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,661	02/15/2007	Yoav Bar-Yaakov	0-06-112	5008

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EXAMINER	
BUIE-HATCHER, NICOLE M	
ART UNIT	**PAPER NUMBER**
1767	

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03/30/2011	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/580,661	BAR-YAAKOV ET AL.	
	Examiner	Art Unit	
	NICOLE M. BUIE-HATCHER	1767	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 February 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4,6-10,12-21,25,27-36,39 and 40* is/are pending in the application.

4a) Of the above claim(s) *14-21 and 32-36* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4,6-10,12,13,25,27-31,39 and 40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The amendment filed 02/01/2011 has been entered. **Claims 1, 2, 4, 6-10, 12-21, 25, 27-36** remain pending. **Claims 39 and 40** have been added. **Claims 14-21 and 32-36** were previously withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 2, 4, 6-8, 25, 27-29, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitahara et al. (US 6,503,988 B1).

Regarding claims 1, 2, 4, 6, 25, and 27 , Kitahara et al. discloses a flame retardant is blended with the antidripping agent before being mixed with a flammable thermoplastic resin (The flame retardant and the antidripping agent is the concentrate) (C6/L15-30). The mixing may be in the powder state (Therefore, the concentrate is solid and homogeneous since it is mixed together). The antidripping agent is the polytetrafluoroethylene fine powder (a fluoropolymer) (C5/L156-19). In the Antidripping Performance Test II, the flame retardant is brominated epoxy resin, YDB-408 (C9/L15-34). The polytetrafluoroethylene fine powder forms an aggregate (granule) with a mean particle diameter from 100 μm to 1000 μm which is within the claimed range (C5/L4-15).

It would have been obvious to one of ordinary skill in the art to choose brominated epoxy resin as the flame retardant, and the motivation to do so would have been, as Kitahara et al. suggests such flame retardants are useful in the forming flame resistive resin compositions (C5/L54-C6/L14).

Regarding claims 7, 8, 28, and 29, in Antidripping Performance Test II, the amount of the brominated epoxy resin is 22.5 parts and the amount of the polytetrafluoroethylene fine powder is 0.39 parts (Therefore, the total amount of both components is 22.89 parts, and the amount of the polytetrafluoroethylene fine powder is 1.7 wt% which is within the claimed range) (C9/L15-34).

Regarding claim 40, Kitahara et al. does not disclose the flame retardant is obtained by reacting flame retardant precursors in the presence of a catalyst.

Regarding the method limitations, the examiner notes that even though a product-by-process is defined by the process steps by which the product is made, determination of

patentability is based on the product itself. In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). As the court stated in Thorpe, 777 F.2d at 697, 227 USPQ at 966 (The patentability of a product does not depend on its method of production. In re Pilkington, 411 F. 2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969). If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process). See MPEP § 2113.

Claims 9, 10, 12, 13, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kitahara et al. (US 6,503,988 B1) as shown above in claims 1 and 2 as evidenced by Kukdo, YDB-408, Brominated Epoxy Resin.

Regarding claims 9 and 30, Kitahara et al. discloses a composition as shown above in claim 1. The softening temperature of EPOKUKDO YDB-408 used in Kitahara is 102-112°C; therefore the melting point is well below 300°C of the instant claim.

Regarding claims 10 and 31, Kitahara et al. discloses a composition as shown above in claim 1. The softening temperature of EPOKUKDO YDB-408 used in Kitahara is 102-112°C; therefore the melting point is well below 300°C of the instant claim.

However, Kitahara et al. does not disclose the flame retardant is obtained from precursors having a melting point below 300°C. Regarding the method limitations, the examiner notes that even though a product-by-process is defined by the process steps by which the product is made, determination of patentability is based on the product itself. In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). As the court stated in Thorpe, 777 F.2d at 697, 227 USPQ at 966 (The patentability of a product does not depend on its method of production. In re Pilkington,

411 F. 2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969). If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process). See MPEP § 2113.

Regarding claims 12 and 13, Kitahara et al. discloses a composition as shown above in claim 1. The equivalent MW (EEW) of EPOKUKDO YDB-408 is 690-750 which corresponds to a molecular weight of 1380-1500. According to the materials used in Table 1 of the instant specification, the MW of F-3020 ex DSBG is an endcapped brominated epoxy oligomer with a MW of 2,000. Since the molecular weight of the flame retardant of Kitahara et al. is well below this molecular weight, the melt viscosity will be lower than 2000 cp, absent objective evidence to the contrary.

Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kitahara et al. (US 6,503,988 B1) as applied to claim 1 above in view of Georlette et al. (US 4,849,134).

Regarding claim 39, Kitahara et al. discloses a concentrate as shown above in claim 1.

However, Kitahara et al. does not disclose the concentrate is in the form of a bulk block. Georlette et al. teaches cold-compacted granular flame retardants which may comprise antidripping agents (claim 5) (bulk block). Kitahara et al. and Georlette et al. are analogous art concerned with similar technical difficulty, namely flame retardant concentrates used for plastic materials. It would have been obvious to one of ordinary skill in the art at the time of invention to use the technique per the teachings of Georlette et al. to form a bulk block of the concentrate of Kitahara et al., and the motivation to do so would have been as Georlette et al. suggests eliminating the problem of dusting and potential health hazards (C1/L58-61).

Response to Arguments

Applicant's arguments with respect to claims 1, 2, 4, 6-13, 25, and 27-31 have been considered but are moot in view of the new ground(s) of rejection. The following comment(s) apply:

A) Applicant's argument that Kitahara et al. teaches the PTFE powders have extremely poor dispersability (page 2) is not persuasive. As stated in Applicant's argument Kitahara aims at mitigating the problem of low PTFE dispersability.

B) Applicant's argument that the instant invention solves the problem entirely different, and achieves good homogeneity by mixing PTFE powder in a liquid phase of retardant, enabling to utilize any PTFE (page 2) is not persuasive. Although, Kitahara solves the problem of homogeneously dispersing PTFE, the resulting product meets the claimed limitations. The fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See Ex parte Obiaya, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Furthermore, although, Kitahara et al. teaches a different method of producing the claimed product, the resulting product meets the claimed limitations. Therefore, the claimed product is a product-by-process. The examiner notes that even though a product-by-process is defined by the process steps by which the product is made, determination of patentability is based on the product itself. In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). As the court stated in Thorpe, 777 F.2d at 697, 227 USPQ at 966 (The patentability of a product does not depend on its method of production. In re Pilkington, 411 F. 2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969). If the product in a product-by-process claim is the same as or obvious from a

product of the prior art, the claim is unpatentable even though the prior product was made by a different process). See MPEP § 2113.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE M. BUIE-HATCHER whose telephone number is (571)270-3879. The examiner can normally be reached on Monday-Thursday with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on (571)272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. M. B./
Examiner, Art Unit 1767
3/17/2011

/Mark Eashoo/
Supervisory Patent Examiner, Art Unit 1767